# THE WHITE PINE BLISTER RUST SITUATION IN MICHIGAN

The most serious enemy of white pine in Michigan, other than fire, is the white pine blister rust. This is a foreign tree disease which was introduced into the state about 1910, on pine nursery stock from abroad. This disease attacks all kinds of five-needled or white pine in one state of its development, and in another stage it grows on all kinds of currants and gooseberries, both wild and cultivated. The disease cannot spread directly from pine to pine. It must always pass through the intermediate stage on currants or gooseberries.

## Blister Rust Found Only in Two Counties

Since 1916 the state and federal agricultural departments have cooperated closely in the control of this disease. The rust has been found in a number of places in Oakland County, and at Ada, in Kent County. Although present in the state probably since 1910, the first discovery of the rust was made in 1917 on white pines at Pontiac. Since then pines, currants, or gooseberries have been found diseased at Birmingham, Long Lake and Royal Oak, in Oakland County, in 1918, 1919, and 1922; and at Ada, in Kent County, in 1922 and 1923. Careful inspection in 1925, in the upper as well as lower peninsula, failed to show the presence of the disease.

## Why White Pine Should be Planted

The application of blister rust control measures is so cheap and so effective that there is no need to let this disease prevent the planting of white pine. Only in the districts where currants and gooseberries are grown commercially is it thought inadvisable to plant this tree. In New England and New York where the rust has been present the longest, the states

have continued to plant white pine extensively. The acreage of planted and native pine protected against blister rust in these states is increasing by about one million acres each year.

According to State Forester, Marcus Schaaf, there were in 1923 between 6 and 7 million acres of undeveloped land in Michigan too sandy or too rough for farming, which must be reforested to be made productive. Of the trees most suitable for planting in Michigan, the native white pine, is the best for all soils except the poorest and driest, upon which Norway and Jack pine do better.

On areas suited to its growth, white pine produces a greater volume of wood per acre than any other conifer. Professor A. K. Chittenden of the Forestry Department of the Michigan State College, has measured a 25-year plantation at East Lansign, which contains 16,354 feet of lumber B.M. per acre. At Ann Arbor, according to Prof. L.J. Young, of the University of Michigan Forestry Department, a 17-year white pine plantation averaged 21.8 feet in height, which compares favorably with white pine of that age in New England. These figures are for pines growing considerably south of their best growing range in the state. Formerly it was thought that such fine growth as this could be obtained only in regions farther north.

## White Pine Protection from the Rust a Simple Matter

The control of the rust to protect the pine is in some ways like the control of an apple disease in an orchard. Large or small areas of pine can be protected from blister rust damage through the destrustion of all currants and gooseberries (carriers of the rust) within 900 feet of the pine. The wild bushes come back slowly so that the area needs going over only once in 5 or 10 years to insure protection from the rust, while with some apple diseases the spraying must be done at least once every year.

If protection by destroying the nearby currants and gooseberries is delayed until the disease appears, serious damage may occur before the presence of the rust is discovered. Since this disease has occurred in Kent and Oakland Counties, it may be expected to appear in other counties as time goes on. Hence the pine owner must decide whether to protect his pine now or later. The state and federal departments are making a cooperative survey for the rust in Michigan at frequent intervals, and will furnish the people of the state with information concerning the blister rust situation as it develops. Since it is usually too late to save the trees after they are diseased, it is advisable to have the pine area cleared of currants and gooseberries before the rust spreads through the locality.

## Get Rid of Black Currants

The cultivated black currant should be destroyed throughout the state as soon as possible. It is the most susceptible of all currants and gooseberries to the rust, becomes infected at long distances from the pine, and is one of the most active factors in spreading the rust.

The presence of the cultivated black currant is considered such a menace to the growing of white pine that the United States Department of Agriculture is opposed to its growth and has urged its destruction in all the white pine growing states.

## For Advice and Publications

Write to either of the following cooperating agencies:

THE MICHIGAN DEPARTMENT
OF AGRICULTURE
Lansing, Michigan

or

THE UNITED STATES DEPARTMENT
OF AGRICULTURE
Washington, D. C.

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